CONTENTS

JANUARY

EDITORIALS

1 I: Time for a change
J. M. Hunter

3 II: Piritramide
N. Kumar and D. J. Rowbotham

6 III: Ethical review of research
A. A. Gilbertson

CLINICAL INVESTIGATIONS

8 'Alveolar recruitment strategy' improves arterial oxygenation during general anaesthesia
G. Tusman, S. H. Böhm, G. F. Vazquez de Anda, J. L. do Campo and B. Lachmann

14 A low concentration of nitrous oxide reduces dyspnoea produced by a combination of hypercapnia and severe elastic load
T. Nishino, S. Isono and T. Ide

20 Effect of sevoflurane concentration on inhalation induction of anaesthesia in the elderly
R. Walpole and M. Logan

25 Identification of causal relations between haemodynamic variables, auditory evoked potentials and isoflurane by means of fuzzy logic
E. W. Jensen, A. Nebot, P. Caminal and S. W. Henneberg

33 Predicting outcome after cardiac surgery: comparison of global haemodynamic and tonometric variables
J. L. Bams, M. A. Mariani and A. B. J. Groeneveld

38 Coating of extracorporeal circuit with heparin does not prevent sequestration of propofol in vitro
E. Hammarén, P. H. Rosenberg and M. Hynynen

41 Troponin I and myocardial injury in the ICU
J. S. Noble, A. M. Reid, L. V. M. Jordan, A. C. A. Glen and J. A. H. Davidson

47 Complement activation and increased systemic and pulmonary vascular resistance indices during infusion of postoperatively drained untreated blood
C. D. Krohn, O. Reikerås and T. E. Mollnes

52 Influence of bolus size on efficacy of postoperative patient-controlled analgesia with piritramide
B. Morlion, E. Ebner, A. Weber, W. Finke and C. Puchstein

56 Ketoprofen, diclofenac or ketorolac for pain after tonsillectomy in adults?
P. Tarkkila and L. Saarnivaara

61 Antagonism of vecuronium-induced neuromuscular block in patients pretreated with magnesium sulphate: dose-effect relationship of neostigmine
T. Fuchs-Buder, T. Ziegenfuß, K. Lysakowski and E. Tassonyi

LABORATORY INVESTIGATIONS

66 Volatile anaesthetics and the atmosphere: atmospheric lifetimes and atmospheric effects of halothane, enflurane, isoflurane, desflurane and sevoflurane
T. Langbein, H. Sonntag, D. Trapp, A. Hoffmann, W. Malms, E.-P. Röth, V. Mörs and R. Zellner

74 Distinct molecular sites of anaesthetic action: pentobarbital block of human brain sodium channels is alleviated by removal of fast inactivation
H. C. Wartenberg, B. W. Urban and D. S. Duch

81 Comparison of exogenous surfactant therapy, mechanical ventilation with high end-expiratory pressure and partial liquid ventilation in a model of acute lung injury
A. Hartog, G. F. Vazquez de Anda, D. Gommers, U. Kaisers, S. J. C. Verbrugge, R. Schnabel and B. Lachmann

87 I.v. lidocaine worsens histamine-induced bronchoconstriction in dogs
K. Hirota, Y. Hashimoto, T. Sato, H. Yoshioka, T. Kudo, H. Ishihara and A. Matsuki

90 Intracoronary propofol attenuates myocardial but not coronary endothelial dysfunction after brief ischaemia and reperfusion in dogs
K. Y. Yoo, S. Y. Yang, J. Lee, W. M. Im, C. Y. Jeong, S. S. Chung and S. H. Kwak

97 Haemodynamic assessment of hypovolaemia under general anaesthesia in pigs submitted to graded haemorrhage and retransfusion
N. Dalibon, S. Schlumberger, M. Saada, M. Fischler and B. Riou

104 Effects of dopexamine on blood flow in multiple splanchnic sites measured by laser Doppler velocimetry in rabbits undergoing cardiopulmonary bypass
O. Bastien, V. Piriou, A. Aouifi, R. Evans and J. J. Lehot

110 Effect of 20% in vitro haemodilution with warmed buffered salt solution and cerebrospinal fluid on coagulation
T. G. Ruttmann, M. F. M. James and K. F. Wells

112 Surgical pain attenuates acute morphine tolerance in rats
S. T. Ho, J. J. Wang, W. J. Liaw, H. K. Lee and S. C. Lee

REVIEW ARTICLE

117 The sitting position in neurosurgery: a critical appraisal
J. M. Porter, C. Pidgeon and A. J. Cunningham

SHORT COMMUNICATIONS

129 Nocturnal hypoxaemia and respiratory function after endovascular and conventional abdominal aortic aneurysm repair
J. P. Thompson, J. R. Boyle, M. M. Thompson, P. R. F. Bell and G. Smith

132 Preliminary evaluation of a new prototype laryngeal mask in children
M. Lopez-Gil, J. Brimacombe and A. I. J. Brain

135 Comparison between tracheal tubes for orotracheal fibreoptic intubation
P. Hakala, T. Randell and H. Valli

137 Changes in plasma potassium concentration during carbon dioxide pneumoperitoneum
A. Perner, K. Bugge, K. M. Lyng, S. Schulze, P. A. Kristensen and A. Bendtsen

CASE REPORTS

140 Dynamic cardiomyoplasty in patients with end-stage heart failure: anaesthetic considerations
A. Lehmann, K. Faust, J. Boldt, J. Lang, E. Thaler and C. Werling

144 Epidural analgesia in an obstetric patient with Klippel–Trenaunay syndrome
P. Dobbs, A. Caunt and T. J. Alderson

147 CORRESPONDENCE

155 BOOK REVIEWS

159 ERRATUM

FEBRUARY

EDITORIALS

161 I: Intraoperative conservation of red cell mass: controlled hypotension or haemodilution—not necessarily mutually exclusive?
I. D. Levack and J. Gillon

164 II: Central nerve block and thromboprophylaxis—is there a problem?
M. R. Checketts and J. A. W. Wildsmith

168 III: Propofol and epilepsy
J. R. Sneyd

CLINICAL INVESTIGATIONS

170 Acute normovolaemic haemodilution vs controlled hypotension for reducing the use of allogeneic blood in patients undergoing radical prostatectomy
J. Boldt, A. Weber, K. Mailer, M. Papsdorf and P. Schuster

175 Thrombelastogram reveals hypercoagulability after administration of gelatin solution
S. Karoutsos, N. Nathan, A. Lahrimi, D. Grouille, P. Feiss and D. J. A. Cox

178 Pulse oximetry plethysmographic waveform during changes in blood volume
M. Shamir, L. A. Eidelman, Y. Floman, L. Kaplan and R. Pizov

182 Formation of nitrogen dioxide from nitric oxide and their measurement in clinically relevant circumstances
U. Schedin, C. G. Frostell and L. E. Gustafsson

193 Dry soda lime markedly degrades sevoflurane during simulated inhalation induction
W. Funk, M. Gruber, K. Wild and J. Hobbhahn

199 Effect of propofol on the electrocorticogram in epileptic patients undergoing cortical resection
P. B. Hewitt, D. L. K. Chu, C. E. Polkey and C. D. Binnie

203 Prediction of movement at laryngeal mask airway insertion: comparison of auditory evoked potential index, bispectral index, spectral edge frequency and median frequency
M. Doi, R. J. Gajraj, H. Mantzaridis and G. N. C. Kenny

208 Placebo-controlled study of inhaled nitric oxide to treat hypoxaemia during one-lung ventilation
K. Fradj, E. Samain, D. Delefosse, E. Farah and J. Marty

213 Small tidal volume ventilation using a zero deadspace tracheal tube
C. S. Liebenberg, R. Raw, J. Lipman, D. G. Moyes and P. E. Cleaton-Jones

217 Respiratory effects of low-dose bupivacaine interscalene block
A. A. Al-Kaisy, V. W. S. Chan and A. Perlas

221 I.v. diclofenac and ketorolac for pain after thoracoscopic surgery
K. Perttunen, E. Nilsson and E. Kalso

228 Comparison of intrathecal and epidural diamorphine for elective Caesarean section using a combined spinal–epidural technique
S. P. Hallworth, R. Fernando, R. Bell, M. G. Parry and G. H. Lim

233 Comparison of midwife top-ups, continuous infusion and patient-controlled epidural analgesia for maintaining mobility after a low-dose combined spinal–epidural
R. E. Collis, F. S. Plaat and B. M. Morgan

LABORATORY INVESTIGATIONS

237 Cerebral response to haemodilution during cardiopulmonary bypass in dogs: the role of nitric oxide synthase
W. Plöchl, B.-L. Liam, D. J. Cook and T. A. Orszulak

244 Isoflurane can indirectly depress lumbar dorsal horn activity in the goat via action within the brain
S. Jinks, J. F. Antognini, E. Carstens, V. Buzin and C. Simons

250 Glycine toxicity after high-dose i.v. infusion of 1.5% glycine in the mouse
J. Olsson and R. G. Hahn

REVIEW ARTICLE

255 Drugs and sex differences: a review of drugs relating to anaesthesia
G. K. Ciccone and A. Holdcroft

SHORT COMMUNICATIONS

266 Time-course of neurone-specific enolase and S-100 protein release during and after coronary artery bypass grafting
F. Gao, D. N. F. Harris and S. Sapsed-Byrne

268 Sister chromatid exchange in human lymphocytes exposed to isoflurane and nitrous oxide *in vitro*
K. H. Hoerauf, K. F. Schrögendorfer, G. Wiesner, M. Gruber, A. Spacek, H.-G. Kress and H. W. Rüdiger

271 Dissociation of pituitary–adrenal and catecholamine activation after induced cardiac arrest and defibrillation
M. J. O'Leary, A. C. Timmins, J. N. Appleby, S. Medbak, A. B. Grossman, A. W. Nathan and C. J. Hinds

274 Antiemetic activity of the NK_1 receptor antagonist GR205171 in the treatment of established postoperative nausea and vomiting after major gynaecological surgery
P. Diemunsch, P. Schoeffler, B. Bryssine, L. E. Cheli-Muller, J. Lees, B. A. McQuade and C. F. Spraggs

277 Glycopyrrolate reduces nausea during spinal anaesthesia for Caesarean section without affecting neonatal outcome
D. Ure, K. S. James, M. McNeill and J. V. Booth

280 Levobupivacaine vs bupivacaine as infiltration anaesthesia in inguinal herniorrhaphy
M. Bay-Nielsen, B. Klarskov, K. Bech, J. Andersen and H. Kehlet

283 Bolus dose remifentanil for control of haemodynamic response to tracheal intubation during rapid sequence induction of anaesthesia
R. O'Hare, D. McAtamney, R. K. Mirakhur, D. Hughes and U. Carabine

286 Comparison of four methods for assessing airway sealing pressure with the laryngeal mask airway in adult patients
C. Keller, J. R. Brimacombe, K. Keller and R. Morris

CASE REPORT

288 Epidural haematoma after removal of an epidural catheter in a patient receiving high-dose enoxaparin
B. Yin, S. McG. Barratt, I. Power and J. Percy

EQUIPMENT

291 Liability of laryngeal mask airway devices to thermal damage from KTP and Nd:YAG lasers
C. Keller, J. Brimacombe, A. Coorey, V. Wood and K. Keller

COMMENTARY

295 Comparison of basic methods in clinical studies and *in vitro* tissue and cell culture studies reported in three anaesthesia journals
M. P. R. Watters and N. W. Goodman

299 CORRESPONDENCE

309 BOOK REVIEWS

311 ACKNOWLEDGEMENT OF ASSESSORS

313 ERRATA

MARCH

EDITORIALS

315 I: Monitoring spinal cord function during aortic surgery: can we reduce the risks?
A. J. Sansome and J. Norman

319 II: Tears at bedtime: a pitfall of extending paediatric day-case surgery without extending analgesia
A. R. Wolf

321 III: Assessing paralysis
J. Norman

CLINICAL INVESTIGATIONS

323 Effect of nitrous oxide on myogenic motor potentials evoked by a six pulse train of transcranial electrical stimuli: a possible monitor for aortic surgery
E. P. van Dongen, H. T. ter Beek, M. A. Schepens, W. J. Morshuis, A. de Boer, L. P. Aarts and E. H. Boezeman

329 Electromyographic assessment of neuromuscular block at the gastrocnemius muscle
Y. Saitoh, Y. Narumi, Y. Fujii, M. Ueki and K. Makita

333 Effect-site modelling of propofol using auditory evoked potentials
M. White, M. J. Schenkels, F. H. M. Engbers, A. Vletter, A. G. L. Burm, J. G. Bovill and G. N. C. Kenny

340 Effects of propofol, propofol–nitrous oxide and midazolam on cortical somatosensory evoked potentials during sufentanil anaesthesia for major spinal surgery
O. Langeron, B. Vivien, X. Paqueron, G. Saillant, B. Riou, P. Coriat and F. Lille

346 Estimating venous admixture using a physiological simulator
J. G. Hardman and N. M. Bedforth

350 Arterial baroreflex function in humans anaesthetized with sevoflurane
M. Tanaka and T. Nishikawa

355 Recovery after anaesthesia for pulmonary surgery: desflurane, sevoflurane and isoflurane
J. Dupont, B. Tavernier, Y. Ghosez, L. Durinck, A. Thevenot, N. Moktadir-Chalons, L. Ruyffelaere-Moises, N. Declerck and P. Scherpereel

360 Magnitude and time course of impaired primary haemostasis after stopping chronic low and medium dose aspirin in healthy volunteers
J. R. Sonksen, K. L. Kong and R. Holder

366 Patient-controlled analgesia: epidural fentanyl and i.v. morphine compared after Caesarean section
D. W. Cooper, U. Saleh, M. Taylor, S. Whyte, D. Ryall, M. S. Kokri, W. R. Desira, H. Day and E. McArthur

371 Relative potencies of bupivacaine and ropivacaine for analgesia in labour
G. Capogna, D. Celleno, P. Fusco, G. Lyons and M. Columb

374 Patients' *vs* nurses' assessments of postoperative pain and anxiety during patient- or nurse-controlled analgesia
I. Rundshagen, K. Schnabel, T. Standl and J. Schulte am Esch

379 Omitting antagonism of neuromuscular block: effect on postoperative nausea and vomiting and risk of residual paralysis. A systematic review
M. R. Tramèr and T. Fuchs-Buder

387 Acupressure and the prevention of nausea and vomiting after laparoscopy
D. Harmon, J. Gardiner, R. Harrison and A. Kelly

391 Neuropeptide Y response to tracheal intubation in anaesthetized children: effects of clonidine *vs* midazolam as premedication
H. T. G. Bergendahl, S. Eksborg, P. Kogner and P. A. Lönnqvist

395 Cuffed oropharyngeal airway (COPA) as an adjunct to fibreoptic tracheal intubation
R. S. Greenberg and N. H. Kay

399 Calculated *vs* measured pharyngeal mucosal pressures with the laryngeal mask airway during cuff inflation: assessment of four locations
C. Keller, J. Brimacombe and A. Benzer

LABORATORY INVESTIGATIONS

402 Isoflurane inhibits neuronal Ca^{2+} channels through enhancement of current inactivation
K. Kameyama, K. Aono and K. Kitamura

412 Propofol, bradycardia and the Bezold–Jarisch reflex in rabbits
D. Ma, M. K. Chakrabarti and J. G. Whitwam

REVIEW ARTICLE

418 Near infrared spectroscopy
H. Owen-Reece, M. Smith, C. E. Elwell and J. C. Goldstone

SHORT COMMUNICATIONS

427 Analgesic effect of adenosine on ischaemic pain in human volunteers
C. P. Rae, M. D. Mansfield, C. Dryden and J. Kinsella

429 Patient-maintained propofol sedation as premedication in day-case surgery: assessment of a target-controlled system
J. A. C. Murdoch and G. N. C. Kenny

432 Iontophoretically applied lidocaine reduces pain on propofol injection
P. J. Sadler, H. M. Thompson, P. Maslowski, A. Liddle and D. J. Rowbotham

435 Effect of bupivacaine on ATP-dependent potassium channels in rat cardiomyocytes
A. Olschewski, H. Olschewski, M. E. Bräu, G. Hempelmann, W. Vogel and B. V. Safronov

439 Management of opioid-induced pruritus: a role for 5-HT_3 antagonists?
K. Kyriakides, S. K. Hussain and G. J. Hobbs

442 Haemodynamic changes after tracheal intubation in cigarette smokers compared with non-smokers
C. H. Laxton, Q. Milner and P. J. Murphy

CASE REPORT

444 Inhalation of nitric oxide as a life-saving therapy in a patient after pulmonary embolectomy
P. Schenk, T. Pernerstorfer, C. Mittermayer, A. Kranz, M. Frömmel, T. Birsan and K. Ratheiser

ABSTRACTS

448P Proceedings of the Anaesthetic Research Society, London Meeting, November 19–20, 1998

473 CORRESPONDENCE

484 BOOK REVIEWS

488 ERRATUM

APRIL

EDITORIALS

489 I: Rapacuronium (Org 9487): do we have a replacement for succinylcholine?
M. R. Goulden and J. M. Hunter

493 II: Tramadol revisited
K. Budd and R. Langford

CLINICAL INVESTIGATIONS

496 Stability of the interstitial matrix after crystalloid fluid loading studied by volume kinetic analysis
C. Svénsen, D. Drobin, J. Olsson and R. G. Hahn

503 Consequences of acute normovolaemic haemodilution on haemostasis during major orthopaedic surgery
P. Hobisch-Hagen, B. Wirleitner, J. Mair, G. Luz, P. Innerhofer, B. Frischhut, H. Ulmer and W. Schobersberger

510 Tissue deposits of hydroxyethyl starch (HES): dose-dependent and time-related
C. Sirtl, H. Laubenthal, V. Zumtobel, D. Kraft and W. Jurecka

516 Haemodynamic effects of propofol *vs* thiopental in infants: an echocardiographic study
E. Wodey, L. Chonow, X. Beneux, O. Azzis, J. Y. Bansard and C. Ecoffey

521 Continuous monitoring of jugular bulb oxyhaemoglobin saturation using the Edslab dual lumen oximetry catheter during and after cardiac surgery
S. A. Millar, R. P. Alston, M. J. Souter and P. J. D. Andrews

525 Continuous cardiac output measurement: pulse contour analysis *vs* thermodilution technique in cardiac surgical patients
G. Rödig, C. Prasser, C. Keyl, A. Liebold and J. Hobbhahn

531 High-dose aprotinin with gentamicin–vancomycin antibiotic prophylaxis increases blood concentrations of creatinine and cystatin C in patients undergoing coronary artery bypass grafting
M. Mercieri, A. Mercieri, L. Tritapepe, M. Ruggeri, R. Arcioni, M. Repetto, B. Bottari and A. Menichetti

537 Comparison of intubating conditions after rapacuronium (Org 9487) and succinylcholine following rapid sequence induction in adult patients
H. J. Sparr, H. Mellinghoff, M. Blobner and G. Nöldge-Schomburg

542 Influence of metoclopramide on plasma cholinesterase and duration of action of mivacurium
H. J. Skinner, K. J. Girling, A. Whitehurst and M. H. Nathanson

546 Cardioventilatory coupling: effects of IPPV
P. D. Larsen, E. L. Trent and D. C. Galletly

551 Dynamics of re-expansion of atelectasis during general anaesthesia
H. U. Rothen, P. Neumann, J. E. Berglund, J. Valtysson, A. Magnusson and G. Hedenstierna

557 Sevoflurane anaesthesia with an Oxford Miniature Vaporizer in vaporizer inside circle mode
E. H. C. Liu and S. S. Dhara

561 Sevoflurane requirements for tracheal intubation with and without fentanyl
T. Katoh, Y. Nakajima, G. Moriwaki, S. Kobayashi, A. Suzuki, T. Iwamoto, H. Bito and K. Ikeda

566 Effect of the laryngeal mask airway on oesophageal pH: influence of the volume and pressure inside the cuff
M. Roux, P. Drolet, M. Girard, Y. Grenier and B. Petit

570 Oral mucosal blood flow, plasma epinephrine and haemodynamic responses after injection of lidocaine with epinephrine during midazolam sedation and isoflurane anaesthesia
Y. Homma, T. Ichinohe and Y. Kaneko

575 Transient neurological symptoms after spinal anaesthesia with hyperbaric 5% lidocaine or general anaesthesia
A. Hiller, K. Karjalainen, M. Balk and P. H. Rosenberg

580 Target-controlled infusion of alfentanil for postoperative analgesia: contribution of plasma protein binding to intra-patient and inter-patient variability
M. C. O. van den Nieuwenhuyzen, F. H. M. Engbers, A. G. L. Burm, A. A. Vletter, J. W. van Kleef and J. G. Bovill

586 Combined field block and i.p. instillation of ropivacaine for pain management after laparoscopic sterilization
T. Callesen, D. Hjort, T. Mogensen, L. Schouenborg, D. Nielsen, H. Reventlid and H. Kehlet

591 Is anaesthesia evidence-based? A survey of anaesthetic practice
P. S. Myles, D. L. Bain, F. Johnson and R. McMahon

LABORATORY INVESTIGATIONS

596 Effects of diazepam and ketamine administered individually or in combination on regional rates of glucose utilization in rat brain
C. Eintrei, L. Sokoloff and C. B. Smith

603 Stereospecific effects of ketamine on dopamine efflux and uptake in the rat nucleus accumbens
P. J. Hancock and J. A. Stamford

609 Mechanisms underlying the inotropic action of halothane on intact rat ventricular myocytes
S. M. Harrison, M. Robinson, L. A. Davies, P. M. Hopkins and M. R. Boyett

REVIEW ARTICLE

622 Protective effects of anaesthetics in reversible and irreversible ischaemia–reperfusion injury
S. Ross and P. Foëx

SHORT COMMUNICATIONS

633 Effect of a bolus dose of midazolam on the auditory evoked response in humans
M. D. Brunner, J. Umo-Etuk, R. M. Sharpe and C. Thornton

635 Patient-controlled sedation using propofol in elderly patients in day-case cataract surgery
P. R. M. Janzen, A. Christys and M. Vucevic

637 Tetracaine gel *vs* EMLA cream for percutaneous anaesthesia in children
J. Rømsing, S. W. Henneberg, S. Walther-Larsen and C. Kjeldsen

639 I.v. clonidine: does it work as a hypotensive agent with inhalation anaesthesia?
J. Lee, A. T. Lovell, M. G. Parry, H. R. Glaisyer and L. M. Bromley

641 Measurement of peripheral tissue thickness by ultrasound during the perioperative period
J. Schumacher, A. Engelke, K.-F. Wagner, W. Eichler, U. Markert and K.-F. Klotz

CASE REPORT

644 Severe postoperative laryngeal oedema causing total airway obstruction immediately on extubation
A. Dark and T. Armstrong

647 CORRESPONDENCE

654 BOOK REVIEWS

658 ERRATUM

MAY

EDITORIALS

659 I: Heart rate variability, BIS and 'depth of anaesthesia'
C. J. D. Pomfrett

663 II:'The only man to have all his work done by Friday was Robinson Crusoe' (Anon)
R. S. Vaughan

CLINICAL INVESTIGATIONS

666 Comparison of bispectral index, 95% spectral edge frequency and approximate entropy of the EEG, with changes in heart rate variability during induction of general anaesthesia
J. W. Sleigh and J. Donovan

672 Comparison of bispectral EEG analysis and auditory evoked potentials for monitoring depth of anaesthesia during propofol anaesthesia
R. J. Gajraj, M. Doi, H. Mantzaridis and G. N. C. Kenny

679 Risk factors for cardiovascular death within 30 days after anaesthesia and urgent or emergency surgery: a nested case-control study
S. J. Howell, J. W. Sear, Y. M. Sear, D. Yeates, M. Goldacre and P. Foex

685 Cardioventilatory coupling in atrial fibrillation
P. D. Larsen, P. Booth and D. C. Galletly

691 Haemodynamic changes associated with portal triad clamping are suppressed by prior hepatic pedicle infiltration with lidocaine in humans
C. Lentschener, D. Franco, H. Bouaziz, F. J. Mercier, B. Fouqueray, C. Landault, J. X. Mazoit and D. Benhamou

698 Flumazenil antagonizes midazolam-induced airway narrowing during nasal breathing in humans
T. Oshima, Y. Masaki and H. Toyooka

703 Laryngeal mask airway size selection in males and females: ease of insertion, oropharyngeal leak pressure, pharyngeal mucosal pressures and anatomical position
J. Brimacombe and C. Keller

708 Direct measurement of mucosal pressures exerted by cuff and non-cuff portions of tracheal tubes with different cuff volumes and head and neck positions
J. Brimacombe, C. Keller, M. Giampalmo, H. J. Sparr and A. Berry

712 Placement of the intubating laryngeal mask is easier than the laryngeal mask during manual in-line neck stabilization
T. Asai, A. U. Wagle and M. Stacey

715 Analgesic efficacy of paracetamol and diclofenac in children receiving PCA morphine
N. S. Morton and K. O'Brien

718 Effect of riluzole on acute pain and hyperalgesia in humans
N. A. Hammer, J. Lillesø, J. L. Pedersen and H. Kehlet

LABORATORY INVESTIGATIONS

723 Concentration-dependent inotropic effects of halothane, isoflurane and sevoflurane on rat ventricular myocytes
L. A. Davies, D. L. Hamilton, P. M. Hopkins, M. R. Boyett and S. M. Harrison

731 Anaesthetic effects of pregnanolone in combination with allopregnanolone, thiopental, hexobarbital and flurazepam: an EEG study in the rat
L. Norberg, T. Bäckström and G. Wahlström

738 Mucosal tissue oxygenation of the porcine jejunum during normothermic cardiopulmonary bypass
M. Haisjackl, R. Germann, W. Hasibeder, B. Schwarz, N. Salak, W. Pajk, J. Bonatti, W. Nussbaumer, G. Klima, W. Kox and N. Mutz

REVIEW ARTICLE

746 Anaesthetic management of epidermolysis bullosa
W. A. Ames, B. J. Mayou and K. Williams

SHORT COMMUNICATIONS

752 Gastric pressure during emergency Caesarean section under general anaesthesia
E. L. Hartsilver, R. G. Vanner, J. Bewley and T. Clayton

755 Spontaneous or neostigmine-induced recovery after maintenance of neuromuscular block with Org 9487 (rapacuronium) or rocuronium following an initial dose of Org 9487
K. C. McCourt, R. K. Mirakhur, D. W. Lowry, M. T. Carroll and H. J. Sparr

757 Effect of rocuronium compared with succinylcholine on intraocular pressure during rapid sequence induction of anaesthesia
C. L. Chiu, F. Jaais and C. Y. Wang

761 Anaesthesia for strabismus surgery: a regional survey
R. Dell and B. Williams

764 Waste anaesthetic gases induce sister chromatid exchanges in lymphocytes of operating room personnel
K. H. Hoerauf, G. Wiesner, K. F. Schroegendorfer, B. P. Jobst, A. Spacek, M. Harth, S. Sator-Katzenschlager and H. W. Rüdiger

767 Differential effects of isoflurane and i.v. anaesthetic agents on metabolism of alveolar type II cells
S. Molliex, B. Crestani, B. Dureuil, C. Rolland, M. Aubier and J. M. Desmonts

CASE REPORTS

770 Failure to prevent an anaphylactic reaction to a second neuromuscular blocking drug during anaesthesia
M. M. Fisher, D. Merefield and B. Baldo

774 Bladder exstrophy in a neonate at risk of transient myasthenia gravis: a role for remifentanil and epidural analgesia
L. Wee and M. A. Stokes

777 Pulmonary oedema after peribulbar block
C. M. Kumar and P. G. Lawler

EQUIPMENT

780 Comparison of a new piezoelectric train-of-four neuromuscular monitor, the ParaGraph, and the Relaxometer mechanomyograph
A. A. Dahaba, F. v. Klobucar, P. H. Rehak and W. F. List

COMMENTARY

783 Autologous transfusion, 3 yr on–what is new? what has happened?
Second Consensus Conference on Autologous Transfusion, Edinburgh, November 11, 1998

ABSTRACTS

785P Proceedings of the Intensive Care Society and Riverside Group 'State of the Art' Meeting, London, December 17–18, 1998

807 CORRESPONDENCE

815 BOOK REVIEWS

JUNE

EDITORIALS

817 I: Acute pain—is there scientific evidence on which to base treatment?
G. Smith, I. Power and M. J. Cousins

820 II: 'In the country of the blind, the one-eyed man is king', Eramus (1466–1536)
D. H. T. Scott

CLINICAL INVESTIGATIONS

822 Portable ultrasound for difficult central venous access
A. Hatfield and A. Bodenham

827 Nitrous oxide does not alter bispectral index: study with nitrous oxide as sole agent and as an adjunct to i.v. anaesthesia
G. Barr, J. G. Jakobsson, A. Öwall and R. E. Anderson

831 Cerebral near infrared spectroscopy: emitter–detector separation must be increased
T. J. Germon, P. D. Evans, N. J. Barnett, P. Wall, A. R. Manara and R. J. Nelson

838 Splanchnic circulation and regional sympathetic outflow during peroperative PEEP ventilation in humans
A. Åneman, G. Eisenhofer, L. Fändriks, L. Olbe, J. Dalenbäck, P. Nitescu and P. Friberg

843 Oxygenator exhaust capnography as an index of arterial carbon dioxide tension during cardiopulmonary bypass using a membrane oxygenator
M. J. O'Leary, S. P. MacDonnell and C. N. Ferguson

847 Ventilatory compensation for inspiratory resistive loads during anaesthesia with halothane or isoflurane
J. Canet, J. Sanchis, P. Vila, A. Zegrí, C. Llubià and F. Vidal

852 End-tidal sevoflurane concentration for tracheal extubation (MAC_{EX}) in adults: comparison with isoflurane
S. Inomata, Y. Yaguchi, M. Taguchi and H. Toyooka

857 Upper airway reactivity and upper respiratory tract infection: effect of nebulized lidocaine
A. P. Hall, A. J. Fox, J. H. Raphael, N. Nandwani and G. Smith

861 Intraoperative therapeutic suggestions in day-case surgery: are there benefits for postoperative outcome?
A. H. Lebovits, R. Twersky and B. McEwan

867 Cognition after major surgery in the elderly: test performance and complaints
J. B. Dijkstra, P. J. Houx and J. Jolles

875 Premedication with melatonin: double-blind, placebo-controlled comparison with midazolam
M. Naguib and A. H. Samarkandi

881 Combined epidural–spinal opioid-free anaesthesia and analgesia for hysterectomy
T. Callesen, L. Schouenborg, D. Nielsen, H. Guldager and H. Kehlet

886 Postoperative pain after adenoidectomy in children
E. Nikanne, H. Kokki and K. Tuovinen

LABORATORY INVESTIGATIONS

890 A model of the kinetics and dynamics of induction of anaesthesia in sheep: variable estimation for thiopental and comparison with propofol
R. N. Upton and G. L. Ludbrook

900 Fentanyl inhibits metabolism of midazolam: competitive inhibition of CYP3A4 *in vitro*
Y. Oda, K. Mizutani, I. Hase, T. Nakamoto, N. Hamaoka and A. Asada

904 Effects of non-depolarizing neuromuscular blocking agents on norepinephrine release from human atrial tissue obtained during cardiac surgery
K. Sato, K. Windisch, I. Matko and E. S. Vizi

REVIEW ARTICLE

910 Regional anaesthesia for carotid endarterectomy
M. D. Stoneham and J. D. Knighton

SHORT COMMUNICATIONS

920 Placement of left-sided double-lumen endobronchial tubes: comparison of clinical and fibreoptic-guided placement
K. F. Cheong and K. F. Koh

922 Mucosal pressures from the cuffed oropharyngeal airway vs the laryngeal mask airway
C. Keller and J. Brimacombe

925 Effect of bolus doses of alfentanil on the arousal response to intubation, as assessed by the auditory evoked response
G. Shinner, R. M. Sharpe, C. Thornton, C. J. Doré and M. D. Brunner

929 Placental transfer of fentanyl in early human pregnancy and its detection in fetal brain
J. Cooper, E. Jauniaux, B. Gulbis, D. Quick and L. Bromley

932 Return of autonomic nervous activity after delivery: role of aortocaval compression
G.-Y. Chen, C.-D. Kuo, M.-J. Yang, H.-M. Lo and Y.-S. Tsai

935 Dexmedetomidine reduces seizure threshold during enflurane anaesthesia in cats
Y. Miyazaki, T. Adachi, J. Kurata, J. Utsumi, T. Shichino and H. Segawa

938 Effect of mild hypothermia on the vascular actions of phenylephrine in rat aortic rings
F. Lagneau, P. Kirstetter, C. Bernard and J. Marty

CASE REPORTS

941 Posterior fossa surgery in the sitting position in a pregnant patient with cerebellopontine angle meningioma
A. Giannini and M. Bricchi

945 Suspected recurrence of malignant hyperthermia after post-extubation shivering in the intensive care unit, 18 h after tonsillectomy
J. A. Short and C. M. S. Cooper

948 Bleeding from a tear in the gastric mucosa caused by transoesophageal echocardiography during cardiac surgery: effective haemostasis by endoscopic argon plasma coagulation
S. Kihara, T. Mizutani, T. Shimizu and H. Toyooka

951 CORRESPONDENCE

955 BOOK REVIEWS

958 ERRATUM

959 INDEX TO VOLUME 82